

REMARKS

Claims 1-32 are pending in the present application. Applicant appreciates rejoinder and consideration of claims 1-32. In the Office Action mailed May 22, 2006, the Examiner rejected claims 1-2, 8-11, 14, 18-23, 25-27 and 30 under 35 U.S.C. §102(b) as being anticipated by Katsumata et al. (USP 4,558,458) "Katsumata." The Examiner next rejected claims 9 and 15 under 35 U.S.C. §102(b) as being anticipated by Gerig et al. (USP 5,446,548) "Gerig." Claims 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Katsumata et al. in view of Popescu (USP 6,501,828). Claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Katsumata et al. in view of Scheibengraber (USP 4,538,289). Claims 28-29 and 32 are rejected under 35 U.S.C. §103(a) as being unpatentable over Katsumata in view of Li et al. (USP 6,269,501).

Claim 13 has been amended to correct the antecedent basis issues regarding "the subject-contour feedback" and "the scout scan," per the recommendation of the Examiner.

Claims 3-7, 12, 13 and 31 were indicated as containing allowable subject matter. Applicant appreciates such indication. Accordingly, new claims 33-41 incorporate the allowable subject matter of claims 3-7, 12, 13, and 31, and place these claims in condition for allowance. New claim 33 incorporates the subject matter of claims 1 and 3, and new claims 34-37 depend from claim 33. New claim 38 has been added to incorporate the subject matter of claims 9 and 12. New claim 39 has been added to incorporate the subject matter of claims 9 and 13. Finally, new claim 40 has been added to incorporate the subject matter of claims 19 and 31.

The Examiner rejected claims 1-2, 8-11, 14, 18-23, 25-27 and 30 under 35 U.S.C. §102(b) as being anticipated by Katsumata. Applicant has amended claims 1, 9, and 19 to further define the invention. Claim 2 has been canceled, and its subject matter has been incorporated into claim 8. Claim 8 was further amended to distinguish a sensor used to provide position feedback in a z-direction to determine patient contour. No new matter has been added.

Katsumata teaches a positioning unit for a radiation tomography apparatus that comprises a light beam generator and a light beam detector, a driving device for driving a table top in the vertical direction, a position detector corresponding to the vertical position of the table, and a controller which positions the table based on an output signal of the light beam detector and an output signal of the position detector. *Katsumata, Abstract*. "Light beam detector 34 opposes light beam generator 32 with the photographing region interposed therebetween." *Id.*, Col. 2, *lns.* 63-66. Driving device 38 drives the table top 36 in the vertical direction, and the position detector 40 detects the position of the table top 36. *Id.*, Col. 2 *ln.* 68 to Col. 3, *ln.* 3. A patient is

placed on the table and moved upward, until the position “L,” where the light beam generator 32 to the light beam detector 34 is blocked, and controller 44 stores the corresponding magnitude H(S). *Id.*, Col.3, lns. 27-50. Controller 44 also stores in advance H(L), which is the elevation at which the table blocks the light beam detector 34. *Id.*, Col. 3, lns. 51-53. Distance from the center of the patient P to the center of the photographing region are then calculated, and controller 44 drives the driving device 38 to move the calculated distance. *Id.*, Col. 3, ln. 63 to Col. 4, ln. 3.

Amended claim 1 now calls for, in part, a computer programmed to associate subject-position feedback with data derived from the detector array. It is noted that Katsumata teaches a positioning unit that drives a table vertically by using position data that compares table position with that of the patient, the location of which is obtained when the patient blocks the beam during motion of the table. Katsumata does not disclose, however, the use of subject feedback data derived from a detector array.

Accordingly, that which is called for in claim 1 is not disclosed or suggested in the art of record. As such, Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over the art of record.

The Examiner next rejected claim 9 under §102(b) as being anticipated by Katsumata. Amended claim 9 now calls for, in part, receiving feedback regarding a subject position from a detector array of an imaging device, acquire image data from the detector array, compare the feedback to the image data received from the detector array, and determine a centering error from the comparison. Katsumata does not disclose receiving feedback regarding a subject position from a detector array of an imaging device, nor does Katsumata compare feedback to image data received from the detector array.

Accordingly, that which is called for in claim 9 is not disclosed or suggested in the art of record. As such, Applicant believes claim 9, and the claims which depend therefrom, are patentably distinct over the art of record.

The Examiner also rejected claim 19 under §102(b) as being anticipated by Katsumata. Amended claim 19 now calls for, in part, positioning a subject in an imaging device having detector array for acquiring image data, collecting positioning information of the subject from both at least one sensor disposed in proximity to the imaging device, and from the detector array; and determining a relative position of the subject within the imaging device from at least the position information. Katsumata does not disclose the use of at least one sensor that is a detector array.

Accordingly, that which is called for in claim 19 is not disclosed or suggested in the art of record. As such, Applicant believes claim 19, and the claims which depend therefrom, are patentably distinct over the art of record.

The Examiner also rejected claim 9 under §102(b) as being anticipated by Gerig. However, Gerig teaches a remote sensing system for real time monitoring of patient position. *Gerig, Abstract*. Targets 111-114 are affixed to the patient for reflecting radiation from light sources 130 and 140, and cameras 150 and 160 detect the reflected light. *Gerig, Col. 3, lns. 31-55*. Gerig does not disclose the comparison of feedback to image data received from the detector array.

Accordingly, that which is called for in claim 9 is not disclosed or taught in the art of record. As such, Applicant believes claim 9, and the claims which depend therefrom, are patentably distinct over the art of record.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-40.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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